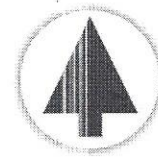


INSTRUMENT CALIBRATION REPORT



Pine Environmental Services LLC

92 North Main St, Building 20

Windsor, NJ 08561

Toll-free: (800) 301-9663

Pine Environmental Services, Inc.

Instrument ID 17598

Description YSI 556

Calibrated 11/23/2016 12:33:13PM

<u>Test Instruments Used During the Calibration</u>					<u>(As Of Cal Entry Date)</u>	
<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date/ Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
NJ COND 1413: 6GH058	1413 conductivity standard	AquaPhoenix Scientific	1413	6GH058	8/16/2016	8/31/2017
NJ ORP 240MV LOT: 9674	ORP solution 240mv	Hanna	240Mv	9674	8/16/2016	1/31/2021
NJ PH 10: 6GG109	BUFFER, PH10 BLUE	AquaPhoenix Scientific	PH10	6GG109	8/16/2016	7/31/2018
NJ PH 4: 6GG264	BUFFER, PH4 RED	AquaPhoenix Scientific	PH4	6GG264	8/16/2016	7/31/2018
NJ PH 7: 6GE833	BUFFER, PH7 YELLOW	AquaPhoenix Scientific	PH7	6GE833	8/16/2016	5/31/2018

Notes about this calibration

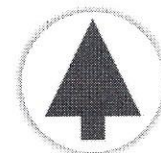
Calibration Result Calibration Successful

Who Calibrated Sigyan Congo

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment

Please call 800-301-9663 for Technical Assistance



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

92 North Main St, Building 20

Windsor, NJ 08561

Toll-free: (800) 301-9663

Pine Environmental Services, Inc.

Instrument ID 17598
Description YSI 556
Calibrated 11/23/2016 12:33:13PM

Manufacturer YSI
Model Number 556
Serial Number/ Lot Number 10M100151
Location New Jersey
Department

State Certified
Status Pass
Temp °C 22.2
Humidity % 23

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
7.00 / 7.00	PH	7.00	PH	6.99	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	3.95	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.03	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
1.413 / 1.413	ms/cm	1.413	ms/cm	1.421	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
240.00 / 240.00	mv	240.00	mv	237.00	240.00	0.00%	Pass

Group # 4
Group Name Dissolved Oxygen Span
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
100.00 / 100.00	%	100.00	%	101.00	100.00	0.00%	Pass

INSTRUMENT QC/ PACKING LIST

Description	YSI 556 sonde and display Barometer equipped: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sonde ID#	16633 17598
Display ID#	16633 17598
Date Calibrated	11-23-2016



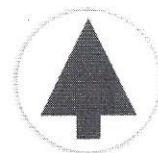
Standard Items	Prepared	QC check	Received by customer	Returned to Pine
YSI 556 sonde w/ ___ m cable and case	<u>✓</u>	_____	_____	_____
YSI 556 Display	<u>✓</u>	_____	_____	_____
Manual	<u>✓</u>	_____	_____	_____
Quick reference card	<u>✓</u>	_____	_____	_____
Probe Guard	<u>✓</u>	_____	_____	_____
Calibration cup w/sponge	<u>✓</u>	_____	_____	_____
Flow cell	<u>✓</u>	_____	_____	_____
• Cell adapter for older style cell (if applicable)	<u>✗</u>	_____	_____	_____
2 of each barb size (1/4, 3/8, 1/2)	<u>✓</u>	_____	_____	_____
DO ₂ probe reconditioning kit	<u>✓</u>	_____	_____	_____
4 C batteries	<u>✓</u>	_____	_____	_____
556 Communications cable	<u>✓</u>	_____	_____	_____
YSI Ecowatch Software	<u>✓</u>	_____	_____	_____
Calibration kit, pH (4,7,10), conductivity, and ORP	<u>✓</u>	_____	_____	_____
ProCal Calibration Sheet	<u>✓</u>	_____	_____	_____

Prepared by: S.C

QC checked by: _____

Date: _____

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, LLC.

92 North Main St, Building 20

Windsor, NJ 08561

Toll-free: (800) 301-9663

Pine Environmental Services, Inc.

Instrument ID 10264
Description YSI 6920
Calibrated 11/17/2016 11:49:41AM

Manufacturer YSI
Model Number 6920
Serial Number/ Lot Number 06J1742AE
Location New Jersey
Department

State Certified
Status Pass
Temp °C 21.8
Humidity % 40

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
7.00 / 7.00	PH	7.00	PH	6.95	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	3.97	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	9.93	10.00	0.00%	Pass

Group # 2
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
0.00 / 0.00	NTU	0.00	NTU	0.00	0.00	0.00%	Pass
126.00 / 126.00	NTU	126.00	NTU	123.35	126.00	0.00%	Pass

Group # 3
Group Name Conductivity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
1.413 / 1.413	ms/cm	1.413	ms/cm	1.422	1.413	0.00%	Pass

Group # 4
Group Name Redox (ORP)
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
240.00 / 240.00	mv	240.00	mv	234.50	240.00	0.00%	Pass

Group # 5
Group Name Dissolved Oxygen Span
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
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INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, LLC.

92 North Main St, Building 20

Windsor, NJ 08561

Toll-free: (800) 301-9663

Pine Environmental Services, Inc.

Instrument ID 10264

Description YSI 6920

Calibrated 11/17/2016 11:49:41AM

Group # 5				Range Acc % 0.0000				
Group Name Dissolved Oxygen Span				Reading Acc % 3.0000				
Stated Accy Pct of Reading				Plus/Minus 0.00				
<u>Nom In Val / In Val</u>		<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
100.00 / 100.00		%	100.00	%	98.96	100.00	0.00%	Pass

Test Instruments Used During the Calibration					(As Of Cal Entry Date)	
Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date / Opened Date	Next Cal Date / Expiration Date
NJ COND 1413: 6GH058	1413 conductivity standard	AquaPhoenix Scientific	1413	6GH058	8/16/2016	8/31/2017
NJ ORP 240MV LOT: 9674	ORP solution 240mv	Hanna	240Mv	9674	8/16/2016	1/31/2021
NJ PH 10: 6GG109	BUFFER, PH10 BLUE	AquaPhoenix Scientific	PH10	6GG109	8/16/2016	7/31/2018
NJ PH 4: 6GG264	BUFFER, PH4 RED	AquaPhoenix Scientific	PH4	6GG264	8/16/2016	7/31/2018
NJ PH 7: 6GE833	BUFFER, PH7 YELLOW	AquaPhoenix Scientific	PH7	6GE833	8/16/2016	5/31/2018
NJ TURB 0.0 NTU LOT:C686663	0.0 NTU TURBIDITY SOLUTION	GFS	0.0 NTU 8483	C686663	5/12/2016	4/30/2017
NJ TURB 126 C688679	126 NTU STANDARD	GFS	126 NTU	c688679	7/18/2016	5/31/2017

Notes about this calibration

Calibration Result Calibration Successful

Who Calibrated Amadu Bah

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Notify Pine Environmental Services, LLC. of any defect within 24 hours of receipt of equipment
Please call 866-960-7463 for Technical Assistance

INSTRUMENT QC/ PACKING LIST

Description	YSI 6820 and 650 MDS display
Sonde ID#	10264
Display ID#	15956
Date Calibrated	11/17/16



Standard Items	Prepared	QC check	Received by customer	Returned to Pine
YSI 6820 sonde w/ ____' cable and case	/	_____	_____	_____
YSI 650 MDS Display	/	_____	_____	_____
Manual	/	_____	_____	_____
Quick reference card	/	_____	_____	_____
Stand (base, clamp, and rod)	/	_____	_____	_____
8.5" Probe Guard w/ black bottom	/	_____	_____	_____
Calibration cup w/ black bottom and sponge	/	_____	_____	_____
Flow cell (long, black bottom)	/	_____	_____	_____
• Cell adapter for older style cell (if applicable)	/	_____	_____	_____
2 of each barb size (1/4, 3/8, 1/2)	/	_____	_____	_____
DO ₂ probe reconditioning kit	/	_____	_____	_____
(4) C batteries	/	_____	_____	_____
6-series Communications cable	/	_____	_____	_____
YSI Ecowatch Software	/	_____	_____	_____
Calibration kit, pH (4,7,10), conductivity, turb (0 and 126 NTU), and ORP.	/	_____	_____	_____
ProCal calibration sheet	/	_____	_____	_____

Prepared by: AB
 QC checked by: _____
 Date: _____

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Certificate of Calibration

The following instrument

Model: PGM-7320, MiniRAE 3000

Serial No: 592-911260

has been calibrated using gases that are traceable to N.I.S.T. standards.

Sensor	Test Gas Concentration	Gas Lot #	Reading
PID	100 ppm Isobutylene ($\pm 2\%$)	401-154445	100
PID	1000 ppm Isobutylene ($\pm 2\%$)	112568	Pass
PID	5000 ppm Isobutylene ($\pm 2\%$)	437653	Pass

After calibration, the instrument was re-checked with the calibration gases and given the results shown on the table.

Calibration date: 10-13-2016

Calibrated by: *Louis Le Louis Le*

RAE Systems, Inc.

